



Sofa Sounds

Southern Ohio Forge and Anvil

November/December 1993

MARK YOUR CALENDAR: Unless otherwise noted all meetings will be held at the Studebaker Frontier Homestead on St. Rt. 202 about four miles north of I-70 and two miles south of the intersection of St. Rt. 571 and 202. Please do not park in the grass or block access to a production area. Donations of items to support the newsletter are always welcome. Finger food and cold drinks provided on a break even, honor donation basis. The forges at the homestead are available before and after the meeting for individual projects. Bring and wear safety glasses. Demonstrations are open to the public and are no charge. Meetings start at 1:00 PM

Upcoming Events:

January 8, 1994 Note Date Change	SOFA MEETING at the Studebaker Homestead. Demonstrator will be Steve Morrison assisted by Bob Cruikshank forging a Colonial meat fork
February 5, 1994	SOFA MEETING at the Studebaker Homestead. Demonstrator will be Dick Franklin demonstrating basic blacksmithing.
March 5, 1994	SOFA MEETING at the Studebaker Homestead. Demonstrator will be Doug Fink forging something to be announced.
April 2, 1994	SOFA MEETING at the Studebaker Homestead. Demonstrator will be Keith Sommer forging wrought iron

President's Note from Ron Thompson:

Congratulations to the members of SOFA ! This group has never failed to amaze and inspire me. Since the last newsletter in which I tried to present the case for a SOFA member or two to step forward and help us keep the club operating, and the speech made by Ron Turpin before his demonstration "calling them like he saw them", we have had three members offer their assistance. **Richard Kern** was the first to offer to take the newsletter editor's job (it starts with this one). Richard is the author of books on powerhammers, gas forges, and other related topics so he is quite qualified to take over the newsletter and we sure appreciate it.

Ed Roush has offered to become the person in charge of sales of hats, t-shirts, Kevlar gloves, and such other related items as we offer from time to time. Ed will bring the items to the meeting and handle the sales of such things. Another job that Hans has been doing and it really helps us out. Thanks Ed.

Finally **Bruce Hubbard** has volunteered his services in any capacity that we elect to use him. We are reviewing the requirements for what it would take to conduct another Quad-state, assuming we can make the transition to another home, and we feel we are getting close to having enough help to pull one off. We will announce where we will be using Bruce when all this shakes out but I can't tell you how surprised and pleased it makes us all feel to have the response. As I said, this club is amazing. There are still some places we can use volunteers, and as we have said before, the more that help the smaller job it is for all, so don't be left out. Sounds a little like Tom Sawyer doesn't it. "Want to paint a fence? What do you have to trade?"

I got a very nice note from **Nancy Sprenkel**, wife of **Dave Sprenkel**, long time SOFA members. She won second place in the SOFA spouse's contest for her painting. She was pleased with the prize money and wanted to thank all of us. Well, Nancy, we're glad you participated and it's nice to hear from you.

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Come to the meeting, it's good to be with you again. Ron Turpin was the demonstrator in November and graciously provided a ten outline of his demonstration. Between that and my notes I think we have him well covered. Don Wiltzer forged silver in ember, showing his skill with the precious metal.

### Ron Turpin's Demonstration for the November SOFA meeting.

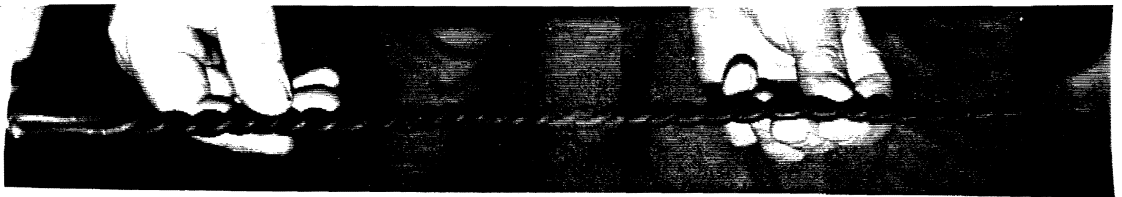
A show in Indiana, Billy Merritt, Blacksmith and Knife maker, showed me a poker. A blacksmith had made it for his grandfather 50 years ago. He said he took it to the Indiana State Blacksmithing conference and has shown it to everyone. Neither he nor 50 other blacksmiths could figure it out. As I looked at it, a light came on in my head and I confidently told him to come to forge and I would make him one. Even though I had never seen or made one like it.. Basically, it is something we have been doing, but this is upside down and backward.



**The "Mystery Braid"**

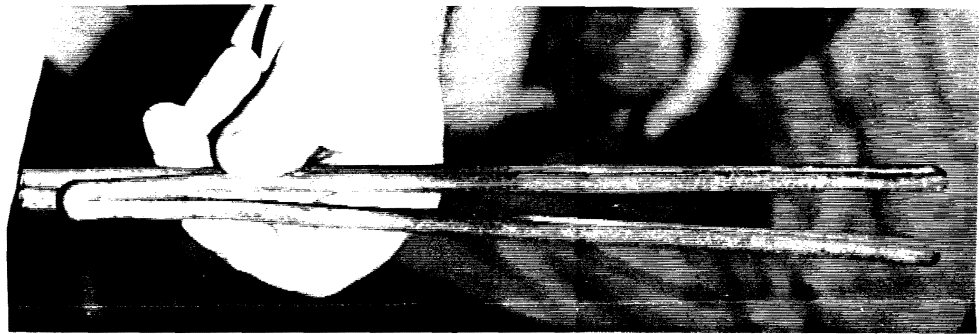
Step 1. Take a 48" to 44" piece of 1/4" round and bend it in the middle (Ron uses 44" for a good fitting handle).

Step 2. Twist it uniformly for the entire length (clockwise). This will give you a 24 inch piece uniformly twisted. You can mark the rod on the cutoff as the mark will end up at the forged end. Be careful as the rod may be A36 and will be brittle if quenched.



**Doubled and Twisted**

Step 3. Bend the 24" piece in the middle. Now you have a 12" length twisted and doubled.



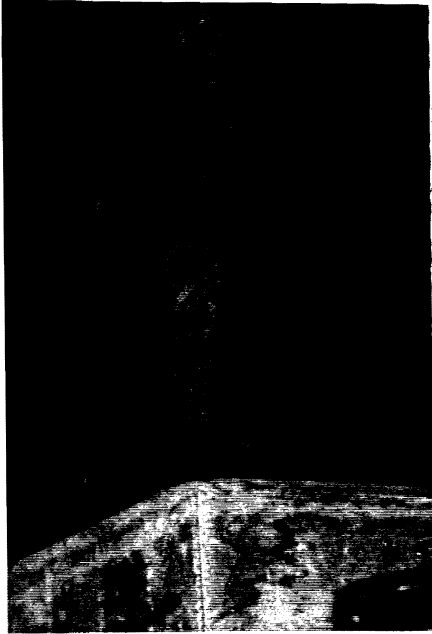
**Showing the double bend without the twist**

Step 4. Heat the open ends, brush off all scale, flux, bring to welding heat. Weld and forge to square. Scarf and prepare for welding to poker shaft. Ron used a salt shaker with borax to make life easier. Use a small hammer to set the weld. A big one with a hard blow will knock it apart. Weld it now, forge it later. He uses three heats to complete the weld watch for the first signs of overheating metal (sparking) as a sign that things are hot enough.



**Is this the Double Welded Twist Step or the Welded Double Twist?**

Step 5. Heat the piece as uniformly as possible, put in vise and untwist (counter-clockwise). Carefully, carefully, carefully, you may use more than one heat for this! If you untwist uniformly you get what appears to be a braid. Place your tongs on the twist point and as one rod section goes vertical move up for the next twist and lock in the chain or braid. The hardest spot is the top, you want to get a single rod to go over the top. The rows of twisted rods will interlace. Do not untwist too far. Watch for the desired effect then stop.



**Untwisting**

The finished handle should look like this.



**Candid shot of Ron Turpin with two finished handles**

Step 6. Forge the finished handle to the poker shaft, Ron uses 7/16 square stock for this. 3/8 also is OK.

Step 7. Forge the hook end of the poker.

- a. taper the end
- b. bend back about 5 inches and weld and forge the new end to a point
- c. shape hook to suit

Step 8. Heat and twist the middle and the poker's done.

The unique thing about this handle is that it has no loose end. Most pokers have 4 rods at the top, formed into a shepherds crook, etc. BUT is obvious how it was done. Untrained non-blacksmith people can't figure out how you "braided" this when loose ends aren't visible. I have named this "Mystery Braid".

Ron also responded to a question on how to silver solder stainless steel. The trick is to warm it gently with flux on it. Let the flux wet the metal, adding more as needed to get a good wetting, this will cut the oxidation and don't get it cherry red, that's too hot. The flux will not penetrate scale so it has to be put on early.



**Finished Mystery Braid Poker**

## Don Witzler - FORGING A SILVER BRACELET - Dec SOFA Meeting

Don is one of the co-founders of the Northeast Ohio Blacksmiths (NOB) and teach at the Campbell Folk School in Perrysville, OH. He started blacksmithing 18 years ago and was originally introduced to silver work with a method of hollowing out a firebrick and melting the silver into that crude mold. Since then he has become very proficient in the art of silver forging and showed some of the work he as done.

To start the demonstration Don recommended as references the following materials: Rio Grand and River Gems catalogs, Indian Silver Smithing, Jewelers Bench Reference and Indian Jewelry Making vols. 12 & 2.

You can buy a silver ingot at a metal exchange, a 999 fine, 10 troy oz silver bar currently costs about \$56. This is the starting point and from that bar Don chiseled a piece weighing approximately 1 1/4 oz. He also used wire, hammered into half rounds and triangle shapes. He prefers the pure silver as it hammers easier. The sterling silver contains 75 parts copper which gives a long wearing property and alters the forging characteristics of the silver. Here are the general differences in the two metals:

| SILVER-- 999 fine                                   | STERLING -- 975 fine                      |
|-----------------------------------------------------|-------------------------------------------|
| softer, easier to work                              | longer wearing, work hardens faster       |
| stays gray after quenching from red heat            | turns black after quenching from red heat |
| red short, crumbles if forged at red heat           | red short, crumbles if forged at red heat |
| forgeable at a black heat                           | forgeable at a black heat                 |
| quenching softens the metal                         | quenching softens the metal               |
| softer than sterling, easier to pick up stray marks | harder, polishes to higher luster         |

### TECHNIQUES:

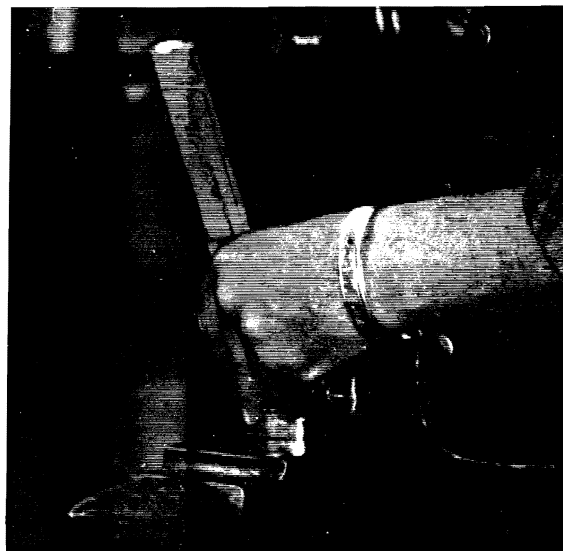
The reason to use the cold chisel to cut the bar is that a saw kerf wastes precious metal and the particles are difficult to recover.

Use a piece of leather between the anvil and on the face of the hold down to keep marks on the silver under control. The leather is between the main anvil and the secondary one Don uses for silver work, not on the anvil face.

Polish hammer faces, punches and anvil faces smooth to keep unwanted texture marks off the end result. Use rounded edges on chisels.

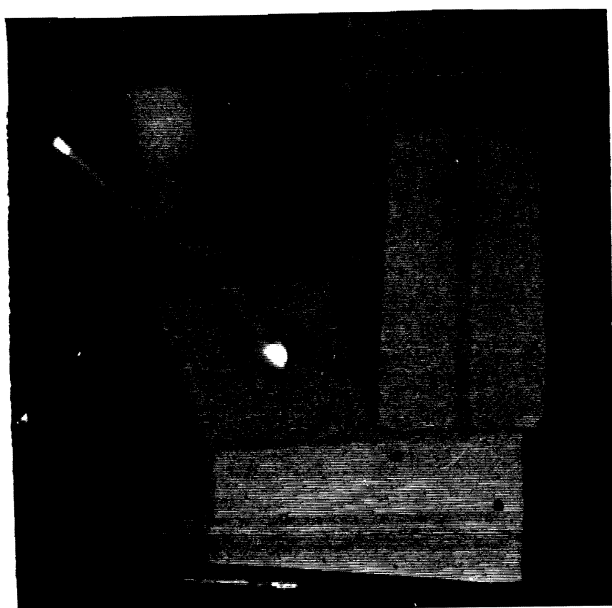


Small anvil strapped to larger anvil



Cutting the bar

After cutting, the piece is melted smooth on the edges. This is one of the tricks that leads to successful forging of silver. The chiseled leaves a feather edge and if you hammer it down, it will almost always bend over and fold back rather than upset into the body of metal. So the secret is to use controlled melting and melt the feather edge back into the bar. Place on two firebricks as shown and heat with a torch, when red hot drizzle borax with your fingers on the metal surface. You want a dim light here because this is a low red heat for iron, you are not trying to melt the bar. You can do this in a forge if you are careful, it's easy to end up with a silver plated forge. Now carefully bring the feather edge to a higher heat so it begins to melt and sag into the rest of the bar. You want it to smoothly run into the rest of the bar without melting the bar. Roll all the edges in the same way.



**Firebrick hearth, this is the custom-pro model**

Once this is done, quench and you are ready to begin forging. Start on the edges and work the bar to a round shape, you will feel the metal become hard in response to your blows. Sterling does this quickly. Reheat and begin forging again at a black heat in dim light. Too bright a light will cover up the redness and it can crumble on you.

Flux and melt the pieces together if cracks develop in the bar, or it crumbles to pieces, put on a firebrick,

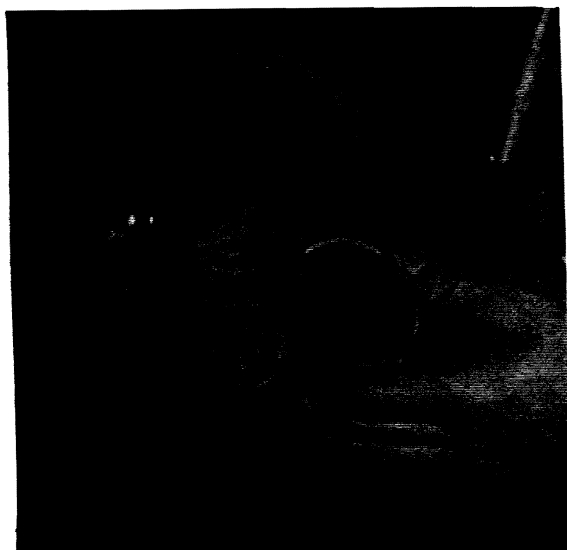
Since silver is soft enough to leave marks in it from the tong pressure, the idea is to work the corner first to a round shape at a hot heat.

Don prefers to forge at a black heat while holding with the tongs. This gives a longer forging time before work hardening. After forging to a bar and it is close to final length (within 1" of finished size) he switches to cold forging the quenched metal. This you can hold in your hands without marking it.

A stainless steel creamer in a forge is an acceptable crucible for silver. Use borax for flux and be careful and the walls are thin.

Draw the bar to a 6" length and cut the desired design in the face of the bracelet with chisels. Sign the back, date it and mark the silver grade, i.e., .999. 1/16" stamps are best for this. To keep designs and spacing in good form, draw center lines, vertically and horizontally, on the back with a pencil.

Polish with simichrome on a buff using a dremel tool. Form the bracelet to shape around a wood beak or former.



**Bracelet former**



**Don's silverwork including this demo bracelet**



Don also incorporates 'wizards' into his bracelets

"SNOBOL" makes a good brass cleaner and for silver as does dilute sulfuric acid. Use in a plastic or crockery pot.

A 'rust eraser' will remove reddish heat scale if desired from the pure silver.

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You may post items for sale on the board, either things you make or have and want to change out. The only qualification is that the items must be related to blacksmithing somehow. This is an unabashed attempt to help you turn your stock and work. I would like to see a long listing of just about everything!!

FOR SALE -- 25 lb. Little Giant power hammer. The hammer is currently located in Iowa. Pictures are available, price is \$1500 in Ohio or \$1250 if you pick it up in Iowa. Janet Lagouranis, P.O. Box 156, Williston, OH 43468. (419) 836-7172.

FOR SALE -- 100 lb. swage blocks for \$110. 65 lb. portable cones with tong groove for \$75. Shovel molds for \$30 Ron Thompson at (513) 492-2259

FOR SALE -- books: Little Giant Powerhammer, Building the Gas Forge & Foundry, More. Catalog free. H&K Publishing, P.O. Box 284, Xenia, OH 45385



This section is for items you want or need. Call me at 513-372-9100 or pass me a note at the next meeting.

☛ Membership renewals: \$5.00, send to Hans Peot, 6425 S. Scarff, New Carlisle, Oh 45344. Check the address label for your membership expiration date.

This issue used Microsoft Word, output at 300 DPI, conventional photography, and is copied on a Xerox 5090 in photo mode.

SOFA SOUNDS  
C/O Richard Kern  
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